An Informal History of The Department of Botany, University of Minnesota 1887-1950

by Ernst C. Abbe, Dept. of Botany

The first Professor of Botany at the University was Conway MacMillan -- colorful, vigorous, dynamic, ambitious, not one to be ignored. He came to the University as an Instructor in the Spring of 1887, became Assistant Professor of Botany in 1890, and Professor of Botany in 1891. Not that Botany had to wait until MacMillan's arrival to take its place in the Curriculum. Responsibility for the teaching of Botany, along with the rest of the Natural Sciences, was given first to N. H. Winchell in 1873, along with the direction of the Geological and Natural History Survey. The teaching part of his assignment was then turned over to C. W. Hall, a Vermonter hired by the Board of Regents in 1878. Hall, also, quickly found that he had more than enough teaching to do. He was authorized in the Spring of 1879 to hire C. A. Herrick "to assist him in Botany for four weeks" for "a sum not to exceed $50.00." The Board of Regents simultaneously appointed Hall an Assistant Professor of Geology and Mineralogy, and also approved a requisition for "7000 labels for use of the Botany classes" -- which gives some idea of the nature of the subject matter then being taught. But Hall was soon back to teaching botany and zoology and asked for and received approval from the Regents in 1880 for 2 microscopes ($60.00), a "section cutter" ($20.00) and "biological apparatus from Smith and Nichols ($5.80). Herrick reappears in 1884, but only to instruct the sophomores in Zoology. Hall clearly found himself overloaded, and must have been much relieved when the Regents appointed "Mr. Henry J. Nachtrieb" an Instructor in Biology in 1885, although he received his first remuneration from the University in 1880 for "work on a meteorite $12.90" and "polishing specimens $6.45." Hall continued to be responsible for Botany in spite of Nachtrieb's title, for the Regents in March 1887 authorized Hall to purchase "instruments and materials for work in botany" and also $300 to pay for an instructor in botany. The new Instructor in Botany was Conway MacMillan, coming to Minnesota with an M.A. from Johns Hopkins, and a bachelor's degree (at 18) from the University of Indiana where his father was a professor. After his initial appointment to his instructorship he spent some months at Harvard and was given permission to be absent again the following academic year.

Precisely when a Department of Botany was established has been a subject of speculation in later years. Rosendahl and Butters, at the Staff Meeting of May 8, 1940 suggested that the 50th Anniversary would fall in 1941, because Prof. MacMillan was made full professor and state botanist fifty years earlier. However the Minutes of the Executive Committee of the Board of Regents on April 21, 1888 speak of the purchase of a microscope for "the department of Biology", but on May 15, 1889 record a grant of $10,000 for the purchase of apparatus and supplies "for the Department of Animal Biology" and immediately after on May 27, 1889 approval of an appropriation of $500 "for the purchase of the Sandberg Herbarium for the Department of Botany." (MacMillan, it might be added, obtained $2500 on June 3rd for "apparatus for instruction in Botany", apparently hastening to catch up with Nachtrieb.) At any rate, it would appear that in the Spring of 1888 there was a department of Biology, which was replaced by the Spring of 1889 by a Department of Botany and a Department of Animal Biology. The academic year 1888/1889 probably should be taken as the year of establishment of the Department of Botany.

MacMillan was to be with the University as the head of the Department until the Spring of 1906 when he submitted his resignation. The Board of Regents at that time included in its Minutes the following: "Resolved, That in accepting the resignation of Professor MacMillan, the Board of Regents desires to express its appreciation of the ability of the professor, and of the admirable work done by him in organizing and conducting the department of Botany." This resolution was a most unusual gesture on the part of the Board of Regents and a testimonial to his indefatigable work on behalf of the department.

During the first 18 years of its existence the Department had grown from MacMillan alone to a staff of several botanists. Important in the economy of the Department was the appointment of MacMillan as State Botanist, which put him in charge of the botanical work of the Geological and Natural History Survey. He also had direct access, through the Regents, to the salt spring land funds which were devoted to the use of the Survey. These funds helped pay his salary and provided for botanical field expenses to some extent, but were largely devoted to the massive survey of the geological resources of the state. This was completed in the later 1890's and a Special Committee of the Board of Regents then (under pressure from MacMillan and Nachtrieb?) expressed its opinion that further prosecution of the geological survey should give way to other branches of the Survey contemplated by the statute. MacMillan used the funds increasingly made available from the Survey to give temporary employment to promising young botany students,

some of whom were then put on the staff. Other staff he brought from outside. There was quite a turnover, but the net result was a growing staff that was highly productive. Their work, outside of teaching, is notably evident in the hundreds of pages of the Minnesota Botanical Studies, started in 1894 with Survey funds, plus the books such as Freeman's Plant Diseases and MacMillan's Metaspermae of the Minnesota Valley, and Postelsia which was a vehicle for papers done by staff of that odd appendage of the Department, the Minnesota Seaside Station.

One of the academic birds of passage during this period was D. T. MacDougal who was an active physiologist of the period and went on to the New York Botanical Garden; another was A. A. Heller well known for early work on the flora of Hawaii; Dr. Francis Ramaley, the first PhD (1897) in the department was briefly on the staff until he went to head the department of botany at the University of Colorado; E. M. Freeman, a student of MacMillan's, member of the botany department staff, and subsequently head of the Department of Plant Pathology in St. Paul and finally Dean of the College of Agriculture; another was A. P. Anderson, who was on the staff, left to go to the New York Botanical Garden where he was when he patented puffed grains -- a very ingenious invention; about 1900, H. L. Lyon became a staff member, and served as acting head for a year when MacMillan resigned, but went to Hawaii to head the Hawaiian Sugar Planters Experiment Station.

There were three of the department's graduates who were native Minnesotans who were appointed to the staff and stayed on to the end of their academic days. These were Josephine E. Tilden, Fred K. Butters and C. O. Rosendahl. They provided for a perpetuation of the MacMillan tradition through a series of departmental Chairman (including Rosendahl at intervals) and deans of the College of Science, Literature and the Arts.

Miss Tilden was a phycologist of international reputation, based at least in part on her monograph on the Blue-Green Algae, long the only richly illustrated comprehensive work on the group. Within the University she was recognized as an aggressive supporter of a variety of worthy social and scientific causes. She vigorously championed rights for women, and set an example of creative and responsible productivity. Among these scientific projects were repeated trips to collect algae in the Pacific Basin. Financially such trips were sometimes notorious failures, but scientifically and educationally they were a tribute to her energy and academic wisdom. Men students as well as women students shared and shared alike on these trips. The Minnesota Seaside Station was another of her inspirations. She found that

one of the richest collecting grounds for salt water algae was at Port Renfrew on Vancouver Island where she promptly acquired land about 1900 or 1901. Students and staff were recruited for each summer trip and transported by private railroad car to this magnificent site for a biological station. However, finances were always a worry and finally at about the time of MacMillan's resignation the Regents pointedly forbade the mention of the University in any way in connection with the Station. They also demanded instant return to campus of all University equipment. Thus ended a magnificent effort to offset the "freshwater provincialism" of botany students in mid-continent by taking them to where they could broaden their biological horizons. No doubt as a local product she felt she should contribute in as many ways as possible to counteracting the dangerous effects of retaining home town people on an academic staff. Certainly Rosendahl and Butters, also in this category, pushed for recruitment from without the University. Much more could be said about Miss Tilden, but it would only contribute to a recognition of her innate greatness and energy.

Carl Otto Rosendahl, a native Minnesotan from the rich farming lands of the southeastern part of the state, earned undergraduate recognition in Botany, then assisted in the Geological and Natural History Survey until 1903. He had decided upon taxonomy of higher plants as a career, and went energetically after the optimum opportunity to improve himself in this area. At that time it was still considered a good thing to go abroad for doctoral work. He was accepted by the great Engler of the Berlin Botanical Garden as a PhD candidate and did a thesis in the Saxifragaceae. Upon his return with a foreign doctorate in 1905 the Regents appointed him to an assistant professorship. He thus became responsible for the Herbarium, and also was repeatedly called upon to take over the reins of departmental administration whenever a hiatus occurred, finally completing his academic career in the continuing office of departmental Chairman -- not too congenial an assignment for him. Primarily he enjoyed his taxonomic work in which he found Butters a constant collaborator, counsellor, or critic as circumstances demanded. They formed a well-known pair whether at the Campus Club, on field trips, at scientific meetings, or in the Herbarium. In addition to monographic studies, Rosendahl was a pioneer in palynology especially in its service to the allergists. He also did a major study in paleoecology where his identifications of plant macrofossils in well cores established a sound first approximation to an understanding of recent vegetational change in the state. He had a wry, dry, Norwegian sense of humor which carried him over many of the difficult problems of departmental administration, and made him a popular lecturer. His students vastly enjoyed his wit. The Herbarium grew enormously under his care

and reached essentially the half million point in number of sheets, thus making it the largest in the upper Middle West exclusive of the Field Museum.

Fred Butters was one of those people no department should be without -- scholarly, considerate, objective, with a profound sense of departmental responsibility, and an integrity that put him above petty politics. Like Rosendahl, Butters was a Minnesotan. Frequent trips back to New England, the ancestral home of the family, firmly established New England ways of speech and expression. He also was a product of MacMillan's department, but went to Harvard for his PhD -- rather late -- in 1916/17. His thesis dealt with the geographical relations of the plants of the Selkirk Mountains, an area in western Canada where he and his friends, Holway, the Iowa banker, and Palmer, a Connecticut manufacturer, had mountaineered together. Holway was an amateur student of rusts and subsequently left his rust herbarium and library to the department. Butters' publications were either taxonomic or morphological. He had an especial liking for ferns, but, as I discovered while I worked with him for many years on the Cook County (Minn.) flora, he was a competent student of all groups of plants. He and Rosendahl expanded to book form a study guide to Minnesota trees and shrubs begun when Clements was head of the department. This book is still useful -- in its final form being published under Rosendahl's name only, following Butters death. Sometimes forgotten is the strong interest Butters had in pharmacognosy -- he was, in fact, originally a member of the staff of the College of Pharmacy, and only subsequently joined the staff of the Botany Department.

The famous ecologist, Frederic E. Clements, was brought to Minnesota in 1907 to succeed MacMillan as head of the department and as State Botanist. He was an ecologist of the Nebraska school and had the teaching of botany modified accordingly, even to the point of having the students do their laboratory work in the greenhouse with plants all around them. Rosendahl said "Well, that was theoretically a very nice thing, but in the winter time, as you well know, greenhouses have a tendency to drip and it wasn't good for your notebooks and your books or your drawings when that performance was on."

While Clements was head he persuaded Rosendahl and Butters to share with him the preparation of a guide to spring flowers, another to autumn flowers, and a guide to trees and shrubs. These, along with other similar publications, were used in teaching and also distributed to various schools of the state under the imprint of the Botanical Survey of the Geological and Natural History Survey. However the heyday of the botanical aspects of the work of the

Natural History Survey was past. The newly re-established Geological Survey completely displaced it and other funds have subsequently supported botanical exploration in the state.

The Guide to Spring Flowers turned out to be a hardy perennial indeed. It has reappeared in various editions following its inception under Clements, early revisions being by Rosendahl and Butters; most recently it has been completely re-written by Dr. Thomas Morley and published as a hard-back book by the University Press in 1972. Similarly, Minnesota Trees and Shrubs became a hard-back publication sponsored by Rosendahl and Butters, and in its final edition by Rosendahl alone.

With the termination of Clements' headship in 1917 Rosendahl served as Acting Chairman for a year, was briefly succeeded by a physiologist, Lee Knight, who served but three months or so and then was incapacitated, so that Rosendahl stepped into the breach again -- serving as Chairman until 1924.

While Clements was still Head, in 1915, the department added William S. Cooper -- a brilliant young ecologist -- to the staff. He was already well known for his doctoral thesis on the ecology of Isle Royale, done under Cowles of Chicago. He extended his field work promptly to Alaska which provided a living laboratory for the study of interactions between waxing and waning glaciers and the march and countermarch of the ever aggressive pioneer plants. His Glacier Bay studies, like that of Isle Royale, quickly became modern ecological classics. He also became interested in the glacial history of the Anoka Sand Plain and was ultimately to complete a Minnesota Geological Survey bulletin on the subject. Perhaps predictably, his ever active and inquiring mind seeking always for the causes of things, led him from the Anoka Sand Plain into the study of living dunes on the west coast. I can well remember his delight as he described some of his early experiments with smoke bombs as an aid in the identification of air currents associated with dune formation. These later studies have been completed by him after retirement and published recently by the Geological Society of America. Cooper stayed at Minnesota until he retired in spite of efforts to lure him away, and he steadfastly resisted the pressure to take on administrative responsibility. His scholarly pre-occupation with research, the training of superior graduate students, and his meticulous attention to teaching filled his academic life to the exclusion of administration. In fact, he was kept so busy with research and teaching that he never quite got around to writing more than a few chapters of one of his projected textbooks. It remained for his students to do this with

outstanding success -- Daubenmire's Plants and Environment and Oosting's The Study of Plant Communities reflect faithfully Cooper's training and inspiration and superb organization of his courses. The members of the Department who were "on deck" during the Cooper era are fortunate indeed for he and his gracious and charming wife welcomed us all to amateur theatricals, musicals, and general high jinks in their beautiful house by Minnehaha Creek. But most of all the Cooper era was marked by the highest standards of academic probity and research in which we all took pride.

Rosendahl's chairmanship was not particularly to his liking and he welcomed the ultimate success of efforts to recruit a Head to replace him. In 1924, J. Arthur Harris, then 44 years old, accepted the headship and the academic title "Professor of Botany and Biometry." His career was cut short by his death in 1930, but in a short six years he achieved a lifetime of work. His actually accepting the position was strongly influenced by his strong friendship with the great biochemist Ross A. Gortner of the College of Agriculture, who had earlier been associated with Harris in the Station for Experimental Evolution of the Carnegie Institution at Cold Spring Harbor. Harris had spent many years in research, which on the one hand brought him into contact with Karl Pearson in the Galton Laboratories in London, with Hugo de Vries and with the elder Trelease at the Missouri Botanical Gardens, and on the other hand had given him responsibility for planning and prosecuting field work in Arizona, Florida, Virginia, Hawaii year in and year out. He had already achieved a degree of international fame for his work in biometry, having been the only American awarded the Weldon Medal by the University of Oxford, in 1921. Basically he was an evolutionary botanist turned biometrician because of a deep conviction that an understanding of evolution demanded the assemblage of large masses of quantitative data, so that individual variation within a natural population might be properly assessed. He was ready for the opportunity to enter the teaching profession because he realized that it is through his students that a teacher achieves a certain sort of immortality that is denied to the solitary research worker.

Thus Harris came to Minnesota, mature, seasoned, influential, and with a benign philosophy of administration that was to galvanize the staff into renewed activity. One of his letters introducing his views to his staff is still in the files. Its positive friendly tone, faith in the quality of the research of which that staff member was capable, a strong statement of belief in team work, and a conviction of a bright new future for the department so impressed the old-timer that he saved it carefully. Indeed, Harris did not miss the mark in this letter. Research productivity in

the department increased in spite of the heavy teaching loads of the time. The taxonomists found their students doing field work in the South Seas, thanks to Harris's contacts and support. Statistical help in research was freely given by Harris to all comers. He realized that the physical neglect of the department must be rectified and persuaded the Administration to do so. In 1926 the cornerstone for the Botany building was laid and Botany was soon under one roof again. In his own teaching, Harris developed courses in Biometry and attracted graduate students -- the last of whom -- Treloar -- was to transfer this teaching to the Medical School.

It was a sad blow to the Department when Harris died at the height of his powers and in the midst of academic innovations of a most promising sort. Dr. Rosendahl was again called upon to take the reins and this time continued as Chairman until his retirement in 1944.

One of the major additions to the staff was when Harris persuaded George Oswald Burr to accept an assistant professorship in 1928. Burr was a research associate at the University of California at that time, but had completed his Ph.D. in biochemistry with Harris's friend Ross Gortner in 1924 after very diversified academic experience in the preceding years. Burr was not a botanist -- and was often puzzled about the identities of whole plants. But when function was divorced from form and became an intricate problem in biochemistry, he was very much at home.

He and his wife were co-discoverers in 1928 of the "essential fatty acids" in animal nutrition which set off a long series of fruitful investigations. Later he pioneered in the use of heavy isotopes (especially C-13 made available by A. O. Nier in the Physics department) in the study of photosynthesis and translocation. He left Minnesota for the Hawaiian Sugar Planters Association where among other discoveries he and his coworkers laid the foundation in 1965 for the four carbon dicarboxylic acid pathway of carbon dioxide fixation in photosynthesis of sugar cane and of other "efficient" green plants.

The older members of the senior staff came to the realization that quite a number -- Rosendahl, Butters and Huff -- would be retiring more or less together in the mid-1940's, and Miss Tilden somewhat earlier in the late 30's. They were able to persuade Dean J. B. Johnston of Science, Literature and the Arts that, in spite of the shortage of funds in the University, ways should be found to bring in junior staff well before the retirements occurred. It is significant that all four of these were Minnesotans and yet the recruitment of the new staff was from outside. The source of the stimulus to follow this policy at the time is not clear -- but it has been consciously adhered to, with but rare

exceptions, to the present. Three of us were hired in annual sequence, I being the first in 1935. I suppose my massive thesis on the phylogeny of the Betulaceae started at Cornell with Eames and finished with Wetmore and Bailey at Harvard, plus a good deal of field experience in the Torngat Mountains of northern Labrador (thanks to Fernald's recommendation) and along the North Shore of the Gulf of St. Lawrence, as well as a collecting trip down the Peace River from the Rockies to Lake Athabaska, and some time in the Panama Canal Zone, appealed to some of the old timers who liked such activity. I had also spent two years of post-doctoral work on a National Research Council Fellowship with Sinnott, the morphogeneticist, at Columbia, and had several published papers of modest extent. Times were bad, considering it was just after the Great Depression, so no one hesitated to work hard. I well remember that one of the duties I was told I would have to perform was to teach Cytology at Minnesota. This was not a subject in which I was particularly proficient, so I decided I couldn't do anything better than to go to my friend Lester J. Sharp at Cornell and help him without pay in his Summer School course in Cytology. In retrospect I suspect he would have been happier not to have had me under foot, but he was most gracious about letting me "help", and when I gave as close a replica of his course as I could manage at Minnesota it turned out to be a great success. It also turned out that Sharp and Cooper had been classmates and friends at Alma College. Also I discovered another link with Cooper when I talked with Edgar Anderson, the great innovator in cytogenetics and genetical taxonomy; he had been at the Great Lakes Naval Training Station during World War I and had met Cooper who was a civilian instructor there at the same time -- Cooper had enormously influenced Anderson's choice of field through his personal interest and intellectually stimulating conversations during that otherwise bleak episode in Anderson's career.

In 1936, Laurence S. Moyer joined the staff, after a year at Yale on a Sterling Fellowship. The two preceding years he had held an NRC Fellowship in Gortner's department of biochemistry so that he had become somewhat acquainted with the Botany Department. His graduate work had been done at the University of Pennsylvania. He was chosen to strengthen the physiology area in the department, which he most assuredly did. He had received a good general training in botany at Pennsylvania, and had acquired a great deal of expertise in such areas as electrophoresis, thereafter. I suggested to him when he came that we split the Cytology course into Nuclear Cytology which I would continue to teach and he take over Extra-Nuclear. This he was happy to do, and gave a most stimulating course in what was essentially cell physiology.

He promptly developed a great reputation as a fine teacher and persistent research worker. When World War II came, Dean Tate (previously of Physics at Minnesota), arranged for Moyer to work as a civilian with one of the research groups of the National Defense Research Commission. In the spring of 1942 he was lost at sea in a blimp collision -- presumably while at work on submarine detection devices. It was a severe loss to the department.

Donald B. Lawrence was the third new staff member, coming from Johns Hopkins in 1937. He strengthened the Ecology area, and was recognized as a most promising exponent of the new school of experimental ecology which "took the laboratory to the plant instead of taking the plant into the laboratory." Ultimately he succeeded Cooper in studies on Alaskan glacier ecology -- he then, in a brilliant tour-de-force, tested concepts and applied techniques developed in Alaska to living glaciers in South America and New Zealand -- to mention but a part of his active field work, which he is still prosecuting.

For a half-dozen years, starting in 1941, C. Stacy French of Harvard, was on the staff. Burr had developed a great interest in photosynthesis and was on the look-out for someone to expand the work in the department in this area, the more so because his work and academic responsibilities were being transferred out of the department. There was great activity in the design and construction of new equipment, experimentation and teaching, but the offer to take over the Directorship of the Biology Division of the Carnegie Institution of Washington in 1947 was too tempting and we lost a highly valued colleague. Before Stacy left we asked him to look for a successor on the staff and the successful candidate that he presented to the department was Allan H. Brown. He joined the staff in 1946 and soon thereafter developed with Alfred O. Nier a novel approach to the near-instantaneous measurement of the concurrent photosynthetic and respiratory gas exchanges of green plants utilizing mass spectrometry of carbon dioxide and of oxygen labelled with available isotopes of carbon and oxygen. His studies also provided strong support for Emerson's quantum yield measurements of photosynthesis. Furthermore, he demonstrated in selected green plants, possibly for the first time in a convincing manner, the phenomenon of "photorespiration" and the stimulating effect of oxygen on this process.

The physiology group in the department was further augmented by the hiring of Albert Frenkel in 1947. Albert Frenkel went to work on blue-green algae and photosynthetic bacteria, and became widely known as discoverer of light induced phosphorylation. His career has brought international reputation to the department.

Just prior to Fred Butters' death, R. M. Tryon, Jr. spent the summer of 1945 in the Herbarium working on ferns of Minnesota, an area of the greatest professional interest to Butters. Tryon accepted an appointment in the department for 1945-46 to help us out in the general teaching as well as in the taxonomic area. At this time he and I as departmental Chairman worked out a plan of organization for the Herbarium of the University of Minnesota. This included the formal establishment of a Curatorship with appropriate time freed from teaching, herbarium budgets for supplies and miscellaneous help, a herbarium advisory committee, and a clear-cut line of responsibility from the Curator to the Chairman which gave the Herbarium a high degree of autonomy. Teaching of taxonomy was recognized as a departmental responsibility, not a Herbarium function. The large size of the Herbarium, its obvious lack of funds, and the need for lively leadership, all were recognized by Dean McConnell who promptly approved the new arrangement. The department thereupon recommended Tryon as the first Curator of the newly organized Herbarium and he energetically went to work. He finished much of The Ferns and Fern Allies of Minnesota (published somewhat later), brought in the Wadmond Herbarium and persuaded Mr. Wadmond to work in the Herbarium on his Juncaceae, and began the massive job of re-mounting specimens long in need of this and cleaning up arrears in the bundle room. He also shared in recruiting Gerald B. Ownbey, who had just completed his PhD in taxonomy at the Missouri Botanical Garden, to help with the teaching in the taxonomy area. When Tryon was persuaded to leave Minnesota, Rudolph Schuster, the hepaticologist (who was here preparing his Hepaticae of Minnesota) stepped into the breach for a year. The Curatorship is now occupied by Gerald B. Ownbey, and Thomas Morley was brought in in 1949 to share the teaching in the taxonomy area.

It was mentioned above that A. Orville Dahl (now at the University of Pennsylvania) was introduced to palynology by Rosendahl. Dahl completed his PhD under Rosendahl's guidance in 1938, doing a distinguished thesis on the cytotaxonomy of an Anemone hybrid. He then went to Harvard as a Faculty Instructor, but was recalled to the department upon Rosendahl's retirement in 1944. He taught a most successful course in Cytology, and organized new courses in Palynology which were very highly regarded both by students and his colleagues. He then served as Chairman for the years 1947-58, a difficult period of faltering support for the University from the Legislature.

Further additions to the staff, such as the all-too-brief period of service of Harlan Banks, the recruitment of John Hall as his successor in the field of paleobotany, and so on brings us to the 1950's which is too close at hand for "historical" treatment.

Sources

University Archives, Walter Library (Mrs. Maxine Clapp and Miss Clodaugh Neiderheiser).
Departmental records and correspondence (which are weak up through the administration of Clements).
Minutes of the Board of Regents (available from 1886 onwards).
Minutes of the Executive Committee of the Board of Regents.
"Minnesota Botanical Studies" and its successors.
The various publications of the Botanical Survey of the Geological and Natural History Survey.
A transcription of a recording of Dr. Rosendahl's seminar, November 9, 1953, "History of the Department" (instigated by Otto Stein).
Various books and publications by members of the staff.
Oral tradition based on the most reliable sources!
Jean McIntosh, departmental Secretary 1944-present.
Albert Frenkel's and Don Lawrence's spot contributions.

- For the AIBS Meeting, Mpls, August 1972 -

A Selection of Departmental PhD's through 1968

Francis Ramaley	1899	Norman H. Russell	1951
Bruce Fink	1900	George C. Webster	1952
Harold L. Lyon	1903	David W. Bierhorst	1952
John E. Weaver	1916	Joseph Michael Daly	1952
Frances L. Long	1917	Leonard Horwitz	1953
Arthur M. Johnson	1919	Jean H. Langenheim	1953
Helen Sorokin	1925	Paul J. Germann	1953
Frank M. Eaton	1926	Otto L. Stein	1954
Henry J. Oosting	1931	Gilbert A. Leisman	1955
Elmer S. Miller	1932	James P. Blaisdell	1956
Olga Lakela	1932	Howard G. Ehrlich	1956
Helen Foot Buell	1932	Helen M. Habermann	1956
John W. Moore	1933	John R. Rowley	1957
Robert R. Humphrey	1933	Richard L. Pierce	1957
Rexford F. Daubenmire	1935	A. Vincent Weber	1957
Murray F. Buell	1935	Joseph D. Novak	1958
Etlar L. Nielsen	1936	David Ross Moir	1958
Thomas T. Earle	1937	Roald A. Peterson	1959
Arthur Nash	1938	Kingsley R. Stern	1959
A. Orville Dahl	1938	Douglas C. Pratt	1960
Jack E. Myers	1939	Yu-Tseng Hsi	1960
John B. Moyle	1939	Fred B. Abeles	1963
John W. Marr	1941	Norman J. Norton	1963
William E. Gordon	1941	John H. McAndrews	1964
George W. Burns	1941	Elizabeth Jerabek Cahoon	1964
Glenn S. Rabideau	1943	Robert B. Kaul	1964
B. Lennart Johnson	1943	Richard L. Meyer	1965
Paul C. Lemon	1943	Konstantine Cost	1965
Arthur J. Cronquist	1944	Robert C. Melchior	1965
Bernard O. Phinney	1946	Toru Kihara	1965
A. Stanley Holt	1947	Lawrence C.W. Jensen	1966
Lincoln Ellison	1948	Joseph D. Ives	1967
Edwin W. Tisdale	1948	A. Linn Bogle	1968
Loren D. Potter	1948	Miles F. Johnson	1968
Violet Koski Young	1950	Jon E. Sanger	1968
Richard W. Van Norman	1950	Donald F. Oltz	1968
John F. Pelton	1951		

MS degree only, from Minn.

Louise Dosdal	1917	Lloyd Spetzman	1951
Harriet George Barclay	1924	Shirley Cotter Tucker	1951
Fergus D.H. Macdowell	1947	Richard T. Ward	1951
Helen Allison Irvine	1951	Edward F. Haskins	1962